



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-4220; Directorate Identifier 2015-NM-076-AD]

RIN 2120-AA64

Airworthiness Directives; BAE Systems (Operations) Limited Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede Airworthiness Directive (AD) 2011-24-06, for all BAE Systems (Operations) Limited Model Avro 146-RJ series airplanes.

AD 2011-24-06 currently requires revising the maintenance program to incorporate life limits for certain items, adding new and more restrictive inspections to detect fatigue cracking in certain structures, and adding fuel system critical design configuration control limitations (CDCCLs) to prevent ignition sources in the fuel tanks. AD 2011-24-06 also currently requires modifying the main fittings of the main landing gear (MLG) and revising the maintenance program to incorporate new life limits on MLG up-locks and door up-locks and other MLG components. Since we issued AD 2011-24-06, we have determined that new or revised structural inspection requirements are necessary. This proposed AD would require revising the maintenance or inspection program, as applicable, to incorporate new or revised structural inspection requirements. We are proposing this AD to detect and correct fatigue cracking of certain structural elements, which could adversely affect the structural integrity of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact BAE Systems (Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; email RApublications@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-4220; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-227-1175; fax: 425-227-1149.

SUPPLEMENTARY INFORMATION:**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2016-4220; Directorate Identifier 2015-NM-076-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On November 8, 2011, we issued AD 2011-24-06, Amendment 39-16870 (76 FR 73477, November 29, 2011) (“AD 2011-24-06”). AD 2011-24-06 requires actions intended to address an unsafe condition on all BAE Systems (Operations) Limited Model Avro 146-RJ series airplanes.

Since we issued 2011-24-06, Amendment 39-16870 (76 FR 73477, November 29, 2011), we have determined that new or revised structural inspection requirements are necessary.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2014-0071, dated March 19, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all BAE Systems (Operations) Limited Model Avro 146-RJ series airplanes. The MCAI states:

The BAe 146 / AVRO 146-RJ Aircraft Maintenance Manual (AMM) includes the Chapters as listed in Appendix 1 of this [EASA] AD. Compliance with these chapters has been identified as a mandatory action for continued airworthiness and EASA AD 2012-0004 [http://ad.easa.europa.eu/blob/easa_ad_2012_0004_superse ded.pdf/AD_2012-0004_1] was issued to require operators to comply with those instructions.

Since that [EASA] AD was issued, BAE Systems

(Operations) Ltd revised the AMM (Revision 107), introducing a new defined life limit for the Fire Bottle Cartridge Firing Unit into Chapter 05-10-15. Subsequently, Revision 108 of the AMM introduced in Chapter 05-20-00 inspection tasks for repairs applied to fatigue critical structures and also introduced a new Chapter 05-20-07 to provide Structural Repair Manual (SRM) references for these tasks, applicable to repairs accomplished after the publication of AMM Revision 108. Finally, AMM Revision 111 introduced safe life limitations into Chapter 05-10-15 for rollers of main landing gear and door up-locks.

Furthermore, Section 6 of the Maintenance Review Board Report (MRBR) Document MRB 146-01, Issue 2, Revision 18 was published (as referenced in Chapter 05-20-01 of the AMM) to correct discrepancies in inspection tasks for a number of Structurally Important Items (SIIs). Grace periods for these revised inspection tasks are included in BAE Systems (Operations) Ltd Inspection Service Bulletin (ISB) ISB.53-237.

Failure to comply with the new and more restrictive tasks and limitations referenced above could result in an unsafe condition.

For the reasons described above, this [EASA] AD retains the requirements of EASA AD 2012-0004, which is superseded, and requires implementation of the maintenance tasks and/or airworthiness limitations as specified in the defined parts of Chapter 05 of the AMM at Revision 112.

The unsafe condition is fatigue cracking of certain structural elements, which could adversely affect the structural integrity of the airplane. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-4220.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

This proposed AD would require revisions to certain operator maintenance documents to include new actions (e.g., inspections) and/or Critical Design Configuration Control Limitations (CDCCLs). Compliance with these actions and/or CDCCLs is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this proposed AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (k)(1) of this proposed AD. The request should include a description of changes to the required actions that will ensure the continued damage tolerance of the affected structure.

Costs of Compliance

We estimate that this proposed AD affects 2 airplanes of U.S. registry.

The actions required by AD 2011-24-06 and retained in this proposed AD take about 3 work-hours per product, at an average labor rate of \$85 per work-hour. Based on

these figures, the estimated cost of the actions that are required by AD 2011-24-06 is \$255 per product.

We also estimate that it would take about 1 work-hour per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$170, or \$85 per product.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States,

or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2011-24-06, Amendment 39-16870 (76 FR 73477, November 29, 2011) (“AD 2011-24-06”), and adding the following new AD:

BAE Systems (Operations) Limited: Docket No. FAA-2016-4220; Directorate Identifier 2015-NM-076-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2011-24-06, Amendment 39-16870 (76 FR 73477, November 29, 2011) (“AD 2011-24-06”).

(c) Applicability

This AD applies to BAE Systems (Operations) Limited Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A airplanes, certificated in any category, all serial numbers.

(d) Subject

Air Transport Association (ATA) of America Code 05, Periodic Inspections.

(e) Reason

This AD was prompted by a determination that new or revised structural inspection requirements are necessary. We are issuing this AD to detect and correct fatigue cracking of certain structural elements, which could adversely affect the structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Retained Airworthiness Limitations Revisions of the Shock Absorber Assemblies

This paragraph restates the requirements of paragraph (j) of AD 2011-24-06, with no changes. Within 90 days after January 3, 2012 (the effective date of AD 2011-24-06), revise the maintenance program, by incorporating Subject 05-10-15, “Aircraft Equipment Airworthiness Limitations” of Chapter 05, “Time Limits/Maintenance Checks,” of the BAE SYSTEMS (Operations) Limited BAe 146 Series/Avro 146-RJ Series AMM, Revision 104, dated April 15, 2011, to remove life limits on shock absorber assemblies, but not the individual shock absorber components, amend life limits on main landing gear (MLG) up-locks and door up-locks, and to introduce and amend life limits on MLG components. Accomplishing the actions required by paragraph (i) of this AD terminates the actions required by this paragraph.

(h) Retained No Alternative Actions, Intervals, and/or Critical Design Configuration Control Limitations (CDCCLs), with No Changes

This paragraph restates the requirements of paragraph (k) of AD 2011-24-06, with no changes. Except as specified in paragraph (i) of this AD: After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections), intervals, and/or CDCCLs may be used, unless the actions, intervals, and/or CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k)(1) of this AD.

(i) New Requirement of this AD: Revise Maintenance Program or Inspection Program

Within 90 days after the effective date of this AD: Revise the maintenance or inspection program, as applicable to incorporate new and revised limitations, tasks, thresholds, and intervals using a method approved by the Manager, International Branch,

ANM-116, Transport Airplane Directorate, FAA. Accomplishing the actions required by this paragraph terminates the actions required by paragraph (g) of this AD.

Note 1 to paragraph (i) of this AD: An additional source of guidance for the actions specified in paragraph (i) of this AD can be found in BAe 146/AVRO 146-RJ Airplane Maintenance Manual, Revision 112, dated October 15, 2013.

Note 2 to paragraph (i) of this AD: An additional source of guidance for the actions specified in paragraph (i) of this AD can be found in Corrosion Prevention Control Program (CPCP) Document No. CPCP-146-01, Revision 4, dated September 15, 2010.

Note 3 to paragraph (i) of this AD: An additional source of guidance for the actions specified in paragraph (i) of this AD can be found in Supplemental Structural Inspections Document (SSID) Document No. SSID-146-01, Revision 2, dated August 15, 2012.

Note 4 to paragraph (i) of this AD: An additional source of guidance for the actions specified in paragraph (i) of this AD can be found in Maintenance Review Board Report Document No. MRB 146-01, Issue 2, Revision 19, dated August 2012.

Note 5 to paragraph (i) of this AD: An additional source of guidance for the actions specified in paragraph (i) of this AD can be found in BAE Systems (Operations) Limited Inspection Service Bulletin ISB.53-237, Revision 1, dated April 2, 2013.

(j) New Requirement of this AD: No Alternative Actions, Intervals, and CDCCLs

After accomplishment of the revision required by paragraph (i) of this AD, no alternative actions (e.g., inspections), intervals, and CDCCLs may be used, unless the

actions, intervals, and CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (k)(1) of this AD.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone: 425-227-1175; fax: 425-227-1149. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or BAE Systems (Operations) Limited's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(I) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2014-0071, dated March 19, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-4220.

(2) For service information identified in this AD, contact BAE Systems (Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; email RApublications@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on February 29, 2016.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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